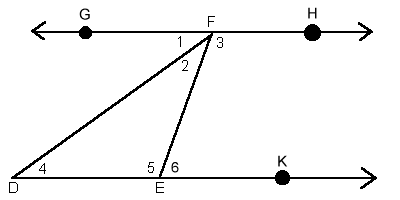
***Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ P: \_\_\_\_\_\_\_***

HW #27

|  |  |
| --- | --- |
| The width is a of the length of a rectangle. If the length is 16 cm, what is the perimeter of the rectangle?  b) What is the area of the rectangle? |  |
| A triangle in the standard (*x*, *y*) coordinate plane has vertices at points (4, 1), (1, 1), and (1, -3). What is the area of such a triangle, as measured in square units?    2. 3 3. 5 4. 6 5. 12 | An 18-foot by 42-foot rectangular roof will be covered by rectangular tiles that measure 2-foot by 3-foot. If the tiles are not cut, how many of them will be needed to cover the roof?  A. 756  B. 126  C. 120  D. 20 |
| If lines *a* and *b* in the figure below are parallel, and intersected by the transversal, c, which of the following  statements must be true?     1. *m*1 = *m*7 Justify your response. 2. *m*2 = *m*8 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. *m*4 + *m*5 = 180 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   1. I only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. III only \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. I and II only 4. I, II, and III   None of the above | |
| Using the figure below, HBC and BCE are right angles. Identify the relationship of the given pair (complementary, supplementary, vertical, or adjacent).   1. IAH and BAI \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 2. BCL and LCK \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 3. BIJ and AIH \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 4. AHI and GHI \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 5. FLK and KLC \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 6. DCK and KCL \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ 7. JIH and AIB \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | |

**GRASP PROBLEMS: Please GRASP both problems on separate pieces of paper**

Problem: Find the measure of each numbered angle in the figure below.

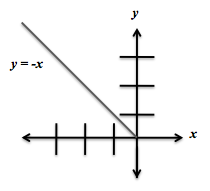


Given: *Line GH* is parallel to *ray DK*

*Angle 6 = 75 degrees.*

*Angle 2 = 30 degrees.*

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



**Question**

In the rectangular coordinate system to the left, the line *y = -x* is the perpendicular bisector of segment *RS* (not shown) and the *y*-axis is the perpendicular bisector of segment *ST* (not shown). If the coordinates of point *R* are (-3, 1), what are the coordinates of point *T* ?